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EXAMINER	
DUONG, THOMAS	
ART UNIT	**PAPER NUMBER**
2145	

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/882,739	CRAMER ET AL.	
	Examiner	Art Unit	
	Thomas Duong	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This office action is in response to the applicants Amendment filed on March 10, 2005. Applicant amended *claims 1 and 3. Claims 1-4* are presented for further consideration and examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. *Claims 1-4* are rejected under 35 U.S.C. 102(e) as being anticipated by Hunt et al. (US006539422B1).

4. With regard to *claims 1-2*, Hunt reference discloses,

- *translating the output of said digital control units into a plurality of discrete data streams having a common communication protocol;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 39-60; col.4, line 63 – col.5, line 3; col.6, lines 27-34) Hunt teaches of a *"system and method for controlling a plurality of automatic data collection (ADC) device platforms"* (Hunt, col.3, lines 39-41), wherein, *"using the*

ADC console 122, a remote operator sends commands to the ADC devices 102 and 102 through a communication link 132... In a similar manner, data collected by the ADC devices 101 and 102 may be transferred to the remote computing system 120 via the computing system 103" (Hunt, col.4, line 63 – col.5, line 3). According to Hunt, a *"translator translates data received from the ADC device into the SNMP format for transmission to the remote computing system"* (Hunt, col.3, lines 57-59). Furthermore, *"the network controller 110 may communicate directly with the ADC device platform 100 through a communication link 131. Using the communication link 131, the network controller 110 may alter device parameters and setting on the ADC platform 100"* (Hunt, col.5, lines 8-13). Hence, Hunt teaches of a communication environment that allows the ADC device platforms (i.e. production units), which may operate under different protocols from each others as well as the remote computing system, to communicate with the remote computing system (i.e. remote network) by translating and encoding the communication protocols of the ADC device platforms to the standardized SNMP protocol used by the remote computing system.

- *reversibly encoding said plurality of discrete data streams into a first single data stream using said common communication protocol;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 39-60; col.4, line 63 – col.5, line 3; col.6, lines 27-34) Hunt teaches of a *"translator [that] translates data received from the ADC device into the SNMP format for transmission to the remote computing system"* (Hunt, col.3, lines 57-59). Hence, the encoding step is implied by Hunt, because

without encoding the translated data into the SNMP format, the collected data would not be able to transmit to the remote computing system.

- *transmitting said first single data stream to a remote network;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 39-60; col.4, line 63 – col.5, line 3; col.6, lines 27-34)

  Hunt teaches of a *"translator [that] translates data received from the ADC device into the SNMP format for transmission to the remote computing system"* (Hunt, col.3, lines 57-59). Hence, Hunt teaches of a transmission step from ADC device platforms (i.e. production units) to the remote computing system after translating and encoding the data from the plurality of protocols used by the devices into a common protocol.

- *decoding said first single data stream into said discrete data streams;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 57-60; col.6, lines 27-34)

  The decoding step is implied because, at the receiving end, which is the remote computing system, the received stream of data would be decoded into separate units, each from a particular ADC device platform, to be analyzed by the remote computing system.

- *identifying by analysis of said data at the remote network at least one target production device of said plurality of production devices to receive instructions;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 57-60; col.15, line 10 – col.16, line 13)

  Hunt teaches of "the system administrator individually selects ADC device platform 100 configuration items and ADC device statistics for viewing" (Hunt, col.15, lines 18-21). Thus, Hunt teaches of diagnosing and analyzing the

configurations and statistics of the device platforms by communicating with the selected device platform.

- *formulating a plurality of instructions responsive to said analysis and arranged as a discrete instruction set corresponding to each of said at least one target production device;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 57-60; col.15, line 10 – col.16, line 13)

  Hunt teaches of "the system administrator individually selects ADC device platform 100 configuration items and ADC device statistics for viewing" (Hunt, col.15, lines 18-21). Thus, Hunt teaches of diagnosing and analyzing the configurations and statistics of the device platforms by communicating with the selected device platform.
- *reversibly encoding said instruction sets into a second single data stream using said common communication protocol;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 39-60; col.4, line 63 – col.5, line 3; col.6, lines 27-34)
- *transmitting said second single data stream to said industrial environment;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 39-60; col.4, line 63 – col.5, line 3; col.6, lines 27-34)
- *decoding said second single data stream at the local network into said discrete instruction set;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 39-60; col.4, line 63 – col.5, line 3; col.6, lines 27-34)
- *translating said instruction set into at least one of said diverse communication protocols executable by the digital control unit connected to each of said at least one target production unit; and* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 39-60; col.4, line 63 – col.5, line 3; col.6, lines 27-34)

- *delivering said instructions over the local network to the target production unit.* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 39-60; col.4, line 63 – col.5, line 3; col.6, lines 27-34)

5. With regard to *claim 3-4*, Hunt reference discloses,

- *translating the output of said digital control units into a plurality of discrete data streams having a common communication protocol;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 57-60; col.6, lines 27-34)

  Hunt teaches of a communication environment that allows the ADC device platforms (i.e. production units), which may operate under different protocols from each others as well as the remote computing system, to communicate with the remote computing system (i.e. remote network) by translating and encoding the communication protocols of the ADC device platforms to the standardized SNMP protocol used by the remote computing system.
- *reversibly encoding said plurality of discrete data streams into a single data stream using said common communication protocol;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 57-60; col.6, lines 27-34)

  The encoding step is implied because without encoding into the SNMP format after translation, the data would not be able to transmit.
- *transmitting said data stream over an open network to a remote network in real time;* (Hunt, col.2, lines 44-46; col.3, lines 57-60; col.6)

  Hunt teaches of a transmission step from ADC device platforms (i.e. production units) to the remote computing system after translating and encoding the data from the plurality of protocols used by the devices into a common protocol.

- *decoding said single data stream into said discrete data streams at said remote network.* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 57-60; col.6, lines 27-34)

  The decoding step is implied because, at the receiving end, which is the remote computing system, the received stream of data would be decoded into separate units, each from a particular ADC device platform, to be analyzed by the remote computing system.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. *Claims 1-4* are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunt (US006539422B1) and in view of Westberg et al. (US005946309A).

8. With regard to *claims 1 and 3-4*, Hunt reference discloses,

- *translating the output of said digital control units into a plurality of discrete data streams having a common communication protocol;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 57-60; col.6, lines 27-34)

  Hunt teaches of a communication environment that allows the ADC device platforms (i.e. production units), which may operate under different protocols from each others as well as the remote computing system, to communicate with

the remote computing system (i.e. remote network) by translating and encoding the communication protocols of the ADC device platforms to the standardized SNMP protocol used by the remote computing system.

- *transmitting said first single data stream to a remote network;* (Hunt, col.2, lines 44-46; col.3, lines 57-60; col.6)

  Hunt teaches of a transmission step from ADC device platforms (i.e. production units) to the remote computing system after translating and encoding the data from the plurality of protocols used by the devices into a common protocol.

- *identifying by analysis of said data at the remote network at least one target production device of said plurality of production devices to receive instructions;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 57-60; col.15, line 10 – col.16, line 13)

  Hunt teaches of diagnosing and analyzing the configurations and statistics of the device platforms by communicating with the selected device platform.

- *formulating a plurality of instructions responsive to said analysis and arranged as a discrete instruction set corresponding to each of said at least one target production device;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 57-60; col.15, line 10 – col.16, line 13)

  Hunt teaches of diagnosing and analyzing the configurations and statistics of the device platforms by communicating with the selected device platform.

- *transmitting said second single data stream to said industrial environment;* (Hunt, col.2, lines 44-46; col.3, lines 57-60; col.6)

- *translating said instruction set into at least one of said diverse communication protocols executable by the digital control unit connected to each of said at least*

one target production unit; and (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 57-60; col.6, lines 27-34)

- *delivering said instructions over the local network to the target production unit.* (Hunt, col.2, lines 44-46; col.3, lines 57-60; col.6)

Even though Hunt implies the encoding and decoding steps as the Examiner explained in the 35 U.S.C. 102(e) rejection above, the Examiner will present another reference, Westberg (US005946309A), that clearly teaches the encoding and decoding of data streams of different formats into a data stream of a single common format to maximize bandwidth utilization.

Westberg teaches,

- *reversibly encoding said plurality of discrete data streams into a first single data stream using said common communication protocol;* (Westberg, col.1, lines 45-47, lines 60-64; col.2, lines 5-36)

  Westberg teaches of receiving a plurality of data streams of different formats or protocol, multiplexing or encoding them into a single data stream of a common data format and transmitting the data over a common telecommunication channel.
- *decoding said first single data stream into said discrete data streams;* (Westberg, col.1, lines 45-47, lines 60-64; col.2, lines 5-36)
- *reversibly encoding said instruction sets into a second single data stream using said common communication protocol;* (Westberg, col.1, lines 45-47, lines 60-64; col.2, lines 5-36)
- *decoding said second single data stream at the local network into said discrete instruction set;* (Westberg, col.1, lines 45-47, lines 60-64; col.2, lines 5-36)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the Westberg reference with the Hunt reference to maximize the bandwidth utilization as pointed out by Westberg. This avoids transmitting different data over separate communication channels. Both the Hunt and Westberg references teach of translating and encoding data of different formats into a single stream of data of a single common format and transmitting it over a telecommunication channel.

Response to Arguments

9. Applicant's arguments with respect to *claims 1 and 3* have been considered but they are not persuasive.

10. With regard to *claims 1 and 3*, the Applicants point out that:

- *The claimed invention uses protocol conversion to avoid the requirement for an HTTP server on the remote units. This distinction between the claimed invention and Hunt is critical because the functionalities required for telemetry, data collection, operating instructions, and configuration instructions are not practical using Hunt's described architecture of web protocols. For example, the amount of software development effort required to make the conversion of the plurality of protocols for the plurality of devices within the local HTTP server is substantial.*
- *Further, one of the advantages of the claimed invention is its "transportability" or applicability to diverse pieces of equipment in diverse industries. As a practical matter, the system disclosed in Hunt is not transportable. As described in Hunt, each ADC device platform to be controlled has its own HTTP server that sends*

and receives HTML, DHTML, and XML documents and its own SNMP master agent. The use of HTTP servers is substantial. The amount of software development effort required to make the conversion of the plurality of protocols for the plurality of devices within the local HTTP server is significant. In contrast, there are no HTTP servers used in the claimed system and method.

However, the Examiner finds that the Applicants' arguments are not persuasive and maintains that Hunt discloses,

- *translating the output of said digital control units into a plurality of discrete data streams having a common communication protocol;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 39-60; col.4, line 63 – col.5, line 3; col.6, lines 27-34)

  Hunt teaches of a *"system and method for controlling a plurality of automatic data collection (ADC) device platforms"* (Hunt, col.3, lines 39-41), wherein, *"using the ADC console 122, a remote operator sends commands to the ADC devices 102 and 102 through a communication link 132... In a similar manner, data collected by the ADC devices 101 and 102 may be transferred to the remote computing system 120 via the computing system 103"* (Hunt, col.4, line 63 – col.5, line 3). According to Hunt, a *"translator translates data received from the ADC device into the SNMP format for transmission to the remote computing system"* (Hunt, col.3, lines 57-59). Furthermore, *"the network controller 110 may communicate directly with the ADC device platform 100 through a communication link 131. Using the communication link 131, the network controller 110 may alter device parameters and setting on the ADC platform 100"* (Hunt, col.5, lines 8-13). Hence, Hunt teaches of a communication environment that allows the ADC device platforms (i.e. production units), which may operate under different

protocols from each others as well as the remote computing system, to communicate with the remote computing system (i.e. remote network) by translating and encoding the communication protocols of the ADC device platforms to the standardized SNMP protocol used by the remote computing system.

- *reversibly encoding said plurality of discrete data streams into a first single data stream using said common communication protocol;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 39-60; col.4, line 63 – col.5, line 3; col.6, lines 27-34)

  Hunt teaches of a *"translator [that] translates data received from the ADC device into the SNMP format for transmission to the remote computing system"* (Hunt, col.3, lines 57-59). Hence, the encoding step is implied by Hunt, because without encoding the translated data into the SNMP format, the collected data would not be able to transmit to the remote computing system.

- *transmitting said first single data stream to a remote network;* (Hunt, col.2, lines 15-25, lines 44-46; col.3, lines 39-60; col.4, line 63 – col.5, line 3; col.6, lines 27-34)

  Hunt teaches of a *"translator [that] translates data received from the ADC device into the SNMP format for transmission to the remote computing system"* (Hunt, col.3, lines 57-59). Hence, Hunt teaches of a transmission step from ADC device platforms (i.e. production units) to the remote computing system after translating and encoding the data from the plurality of protocols used by the devices into a common protocol.

Furthermore, Hunt's "HTTP server" can easily be implemented using a simple and basic software program as well known in the networking art. Hence, the Applicants' argument of "transportability" and practical of Hunt's system is not persuasive. In conclusion, Hunt teaches of a communication environment that allows the ADC device platforms (i.e. production units), which may operate under different protocols from each others as well as the remote computing system, to communicate with the remote computing system (i.e. remote network) by translating and encoding the communication protocols of the ADC device platforms to the standardized SNMP protocol used by the remote computing system. Therefore, the Applicants still failed to clearly disclose the novelty of the invention and identify specific limitation, which would define patentable distinction over prior art.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Duong whose telephone number is 571/272-3911. The examiner can normally be reached on M-F 7:30AM - 4:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin-Wallace can be reached on 571/272-6159. The fax phone numbers for the organization where this application or proceeding is assigned are 703/872-9306 for regular communications and 703/872-9306 for After Final communications.

Thomas Duong (AU2145)

June 2, 2005

V. Martin Wallace

VALENCIA MARTIN-WALLACE
SUPERVISORY PATENT EXAMINER